DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 06/22/2009 have been fully considered but they are not persuasive.

In response to the entire content of the remarks, in particular that "Among the limitations of independent claim 1 which are neither disclosed nor suggested in the art of record is the step of "updating a value of the [time] offset Toffset on each change of the current cell and for each neighboring cell associated with the radio access technique of the passive module." ..." and "... Applicant therefore respectfully disagrees with the Office Action's assertion that Anderson discloses the claimed limitation, because, like Leprieur, Anderson does not disclose calculating the time offset of a passive mode on a change from a current cell to another, and further does not disclose measuring time offset for each neighboring cell when a handover occurred ...," the examiner respectfully disagrees. First of all, neither Leprieur nor Anderson teaches that "calculating the time offset of a passive mode on a change from a current cell to another" and "measuring time offset for each neighboring cell when a handover occurred" because the claimed limitation, "updating a value of the [time] offset Toffset on each change of the current cell and for each neighboring cell associated with the radio access technique of the passive module," does not claim what Applicant argues Leprieur and Anderson do not disclose. The

particular claimed limitation seems to merely claim updating a value of the offset Toffset on each change of the current cell; such "each change" does not necessarily mean "from a current cell to another." Also, the particular claimed limitation simply claim updating a value of the offset Toffset for each neighboring cell associated with the radio access technique of the passive module, instead of updating time offset "for each neighboring cell when a handover occurred." Therefore, examiner respectfully asserts that the Applicant's argument is not valid.

Regarding the particular claimed limitation, "updating a value of the offset Toffset on each change of the current cell and for each neighboring cell associated with the radio access technique of the passive module," examiner respectfully asserts that the combined teaching of the Admitted Prior Art, Leprieur and Anderson does teach the limitation. In particular, since the Admitted Prior Art and Leprieur together teach "(a) measuring for each of cells adjacent to the current cell a time offset Toffset ... of the second radio access technique" (as shown by the Admitted Prior Art, [0009] Lines 8-12 and Leprieur, [0007] [0009] [0011] [0018]) and Leprieur further teaches that such measuring should be done regularly (as shown by Leprieur [0007]), the combined teaching of the Admitted Prior Art and Leprieur not only teaches measuring of Toffset associating with each adjacent cells, but also, suggests updating the Toffset on the regular basis. In short, the Admitted Prior Art and Leprieur teach "updating a value of the offset Toffset for each neighboring cell associated with the radio access technique of the passive module." Furthermore, Anderson teaches that rule information/codebook, which commands a mobile node to monitor carriers for neighboring measurement reporting, can be updated when a mobile node moves in a network (such movement must be either within a cell or between cells), switching

from one type of call to another (such switching must happen when the mobile node is in a cell) and the network is dynamically updated (the teaching is shown by Anderson, column 5 lines 50-55, column 6 lines 4-15 and column 10 lines 5-8). In another word, the rule information/codebook is updated when there is a change in a cell. Therefore, by incorporating Anderson's rule information/codebook updating mechanism, the system formed by the Admitted Prior Art and Leprieur can achieve the functionality of "updating a value of the offset Toffset on each change of the current cell." In conclusion, the combination of the Admitted Prior Art and Leprieur yields the particular claimed limitation as a result.

Claim Rejection - 35 USC § 103

2. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 4, 6, 7, 8, 9, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the background of Sanchez, U.S. Publication No 20060182147 (admitted prior art) in view of Leprieur et al, U.S. Publication No 20030003951 (Leprieur) and Anderson, U.S. Patent No. 7046996 (Anderson).

Regarding Claim 1, the admitted prior art teaches that **a method for time-synchronization of at least two radio access modules of a multimode communication mobile terminal which is configured to function according to at least two distinct radio access techniques in a cellular telecommunication network in which one of the radio access modules is active in a current cell and the other radio access module is in a passive state in the current cell** (see [0003] [0005] [0009] e.g. the type 2 mobile terminal has both GSM mode and UMTS mode electronic cards; when one electronic card (GSM or UMTS) is activated, the other is inactive)

the method comprising steps of: (a) measuring for each of cells adjacent to the current cell (see [0009] Lines 8-12). However, the admitted prior art does not teach that **the method comprising steps of: (a) measuring for each of cells adjacent to the current cell a time offset T_offset between start of a specific frame of the first radio technique and start of a specific frame of the second radio access technique; (b) using the time offset T_offset measured in step (a) for synchronizing the passive radio access module with the active radio access module; and (d) the active radio access module activating the passive radio access module immediately before step (a)**. Leprieur from the same field of endeavor teaches that **the method comprising steps of: (a) measuring for each of cells adjacent to the current cell a time offset T_offset** (see [0005-0007] [0009] [0015] [0040] e.g. for a mobile terminal to make a good transition when moving from a cell with a first mode (GSM or UMTS) to a different cell with a second mode (GSM or UMTS), a mobile terminal connected by a radio link to a base station using a first mode must therefore be in a position to know the exact time for at least one other mode or each of cells with a second mode adjacent to the current cell) **between start of a specific frame of the first radio technique and start of a specific frame of the second radio access technique** (see [0019] [0021] [0033] [000038-0039]); **(b) using the time offset T_offset measured in step (a) for synchronizing the passive radio access module with the active radio access module** (see Abstract, [0016] [0032] [0045]); **and (d) the active radio access module activating the passive radio access module** (see [0024] [0047]) **immediately before step (a)** (see [0013] [0020] [0022] [0023-0024] [0033-0035] [0038-0039] [0047] i.e. in order for the multimode terminal to calculate/measure the time shift or time offset, each part, such as a clock, respectively operating in compliance with a mode is used to measure a time value

associated with start of the fame of the mode; in addition, paragraph [0047] lines 7-11 states: "when a measurement on a station associated with the second mode is necessary … the party (part) associated with the first mode can activate the (part associate with) second mode via the microcontroller …"; so, when a the part of the first mode finishes measuring, the part of first mode activates the part of second mode to start taking measurement associated with the second mode; such step of activation takes place immediately before calculating/measuring the time shift or time offset). At the time of the invention, it would have been obvious to a person ordinary skill in the art to implement the parts with respect to the GSM and UMTS modes from Leprieuri's multimode terminal to the GSM and UMTS electronic cards of the type 2 mobile terminal in order to synchronize the two radio access technique using the time offset between the two. The motivation would have been that it is desired to guarantee smooth switching between two different radio access technologies e.g. [0045] line 5-10.

Still regarding Claim 1, the admitted prior art and Leprieur teach all the limitation in claim 1 except that **the method, comprising a step of (c) updating a value of the offset T_offset on each change of the current cell and for each neighboring cell associated with the radio access technique of the passive module.** Even so, the admitted prior art and Leprieur allow one ordinarily skilled in the art to realize that **the method, comprising a step of (c) updating a value of the offset T_offset on each change of the current cell and for each neighboring cell associated with the radio access technique of the passive module** (see Leprieur, [0005-0007] [0009] [0015] [0040] i.e. the UMTS/GSM switching technique and T_offset calculation must be able to perform repeatedly since it is an cellular communication environment and the states of

current cell and its neighboring cells are constantly changing; consider the following scenario: when a dual-mode terminal is in a UMTS cell, it first measures the T_offset; when it moves to a neighboring GSM cell, it has to secondly active the passive module; when it is in the GSM cell, it then again thirdly measures T_offset; the steps then repeats; therefore, when the dual-mode terminal repeats second and third steps, the T_offset gets updated again and again). Therefore, Anderson from the same field of endeavor is brought in to combine with the admitted prior art and Leprieur to support the realization that **the method, comprising a step of (c) updating a value of the offset T_offset on each change of the current cell and for each neighboring cell associated with the radio access technique of the passive module** (see Abstract, Column 1 Lines 8-13, 60-67, Column 2 Lines 1-3, Column 5 Lines 47-55, Column 6 Lines 4-15, Column 7 Lines 65-67, Column 9 Lines 50-67, Column 10 Lines 1-8 e.g. column 6 lines 4-15, column 9 lines 50-67, column 10 lines 1-8; as illustrated, the rule information/code-book is updated when to facilitate the change from a GSM call to a UMTS call, and when the code-book is updated, mobile stations are commanded to monitor UMTS carriers for neighbor measurement reporting). At the time of the invention, it would have been obvious to a person ordinary skill in the art to enable the mobile stations to encode and/or decode messages broadcasted by the base station on a broadcast channel base on dynamically updated rule information. The motivation would have been that there a need to broadcast information about several modes, thus utilizing significant amounts of the bandwidth allocation (see column 2 lines 1-3).

Regarding Claims 4 and 12, the admitted prior art further teaches that **the method, wherein the mobile terminal is a UMTS/GSM dual-mode terminal and wherein the predefined duration**

T_offset is a time difference observed on a GSM cell defined in standard 3GPP TS 25.215 (see [0020]).

Regarding Claim 6, it is a device claim corresponding to the method claim 1, and therefore rejected under the same reason set forth in the same section of claim 1 in this paragraph.

Regarding Claim 7, the admitted prior art teaches that **a multimode mobile terminal comprising: a radio access module dedicated to each operating mode** (see [0003] [0009] e.g. the GSM and UMTS electronic cards). However, the admitted prior art does not teach that **a clock generator associated with each radio access module; and a unit for calculating a time offset T_offset between start of a specific frame of a first operating mode and start of a specific frame of a second operating mode in a cellular telecommunication network, wherein the mobile terminal comprises a central interface which is configured to generate a clock signal of a passive radio access module shifted with respect to a clock signal of an active radio access module concerning the duration T_offset, and wherein the active radio module is adapted to activate the passive radio access via the central interface, and the activation of the passive radio access module is make immediately before calculating the time offset T_offset.** Leprieur et al from the same field of endeavor teach that **a clock generator associated with each radio access module** (see [0013] [0022] [0034] e.g. the clocks U1 and U2)**; and a unit for calculating a time offset T_offset between start of a specific frame of a first operating mode and start of a specific frame of a second operating mode in**

a cellular telecommunication network (see [0015] [0018-0023] [0025] line 1-10 e.g. the counter)**, wherein the mobile terminal comprises a central interface which is configured to generate a clock signal of a passive radio access module shifted with respect to a clock signal of an active radio access module concerning the duration T_offset** (see [0016] [0025] line 10-12 e.g. the microcontroller)**, and wherein the active radio module is adapted to activate the passive radio access via the central interface, and the activation of the passive radio access module is make immediately before calculating the time offset T_offset.** (see [0013] [0020] [0022] [0023-0024] [0033-0035] [0038-0039] [0047] i.e. in order for the multimode terminal to calculate/measure the time shift or time offset, each part, such as a clock, respectively operating in compliance with a mode is used to measure a time value associated with start of the fame of the mode; in addition, paragraph [0047] lines 7-11 states: "when a measurement on a station associated with the second mode is necessary … the party (part) associated with the first mode can activate the (part associate with) second mode via the microcontroller …"; so, when a the part of the first mode finishes measuring, the part of first mode activates the part of second mode to start taking measurement associated with the second mode; such step of activation takes place immediately before calculating/measuring the time shift or time offset). At the time of the invention, it would have been obvious to a person ordinary skill in the art to implement the parts with respect to the GSM and UMTS modes from Leprieuri's multimode terminal to the GSM and UMTS electronic cards of the type 2 mobile terminal in order to synchronize the two radio access technique using the time offset between the two. The motivation would have been that it is desired to guarantee smooth switching between two different radio access technologies e.g. [0045] line 5-10.

Still regarding Claim 7, the admitted prior art and Leprieur teach all the limitation in claim 7 except that **the multimode mobile terminal, wherein the unit update a value of the offset T_offset on each change of the current cell and for each neighboring cell associated with the radio access technique of the passive module.** Even so, the admitted prior art and Leprieur allow one ordinarily skilled in the art to realize that **the multimode mobile terminal, wherein the unit update a value of the offset T_offset on each change of the current cell and for each neighboring cell associated with the radio access technique of the passive module** (see Leprieur, [0005-0007] [0009] [0015] [0040] i.e. the UMTS/GSM switching technique and T_offset calculation must be able to perform repeatedly since it is an cellular communication environment and the states of current cell and its neighboring cells are constantly changing; consider the following scenario: when a dual-mode terminal is in a UMTS cell, it first measures the T_offset; when it moves to a neighboring GSM cell, it has to secondly active the passive module; when it is in the GSM cell, it then again thirdly measures T_offset; the steps then repeats; therefore, when the dual-mode terminal repeats second and third steps, the T_offset gets updated again and again). Therefore, Anderson from the same field of endeavor is brought in to combine with the admitted prior art and Leprieur to support the realization that **the multimode mobile terminal, wherein the unit update a value of the offset T_offset on each change of the current cell and for each neighboring cell associated with the radio access technique of the passive module** (see Abstract, Column 1 Lines 8-13, 60-67, Column 2 Lines 1-3, Column 5 Lines 47-55, Column 6 Lines 4-15, Column 7 Lines 65-67, Column 9 Lines 50-67, Column 10 Lines 1-8 e.g. column 6 lines 4-15, column 9 lines 50-67, column 10 lines 1-8; as illustrated, the

rule information/code-book is updated when to facilitate the change from a GSM call to a UMTS call, and when the code-book is updated, mobile stations are commanded to monitor UMTS carriers for neighbor measurement reporting). At the time of the invention, it would have been obvious to a person ordinary skill in the art to enable the mobile stations to encode and/or decode messages broadcasted by the base station on a broadcast channel base on dynamically updated rule information. The motivation would have been that there a need to broadcast information about several modes, thus utilizing significant amounts of the bandwidth allocation (see column 2 lines 1-3).

Regarding Claim 8, Leprieur further teaches that **the mobile terminal, wherein the central interface comprises a module for generating an order for activating the passive radio access module** (see [0047] Lines 7-12). At the time of the invention, it would have been obvious to a person ordinary skill in the art to let the central interface comprise a module for generating an order for activating the passive radio access module. The rationale would have been that it is desired simplify the structure of the multimode terminal.

Regarding Claims 9 and 14, the admitted prior art further teaches that **the mobile terminal, wherein the mobile terminal supports a UMTS network and a GSM network** (see [0020]).

Conclusion

5. **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WEI-PO KAO whose telephone number is (571)270-3128. The examiner can normally be reached on Monday through Friday, 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/

Supervisory Patent Examiner, Art Unit 2464

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